CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

W13c

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COASTAL DEVELOPMENT PERMIT APPLICATION

Application number.....**3-01-111, Pelican Point Riverwall**

Applicant.....Pelican Point Homeowners Association

Project location.....*Zmudowski State Beach* at the mouth of the Pajaro River, at the downcoast end of the Pajaro Dunes residential community located at the confluence of the Pajaro River, Watsonville Slough, and the Monterey Bay in the southernmost reach of unincorporated Santa Cruz County.

Project description.....Install a driven sheet-pile metal wall along roughly 715 linear feet of the Pajaro River and Watsonville Slough sides of the Pelican Point condominium portion of the Pajaro Dunes residential development.

File documents.....Coastal Commission Coastal Development Permit (CDP) Files 3-81-105 and A-3-SCO-84-059, and Emergency Permit File 3-91-028-G; Santa Cruz County CDP Files 87-0644 and 99-0620; Santa Cruz County Certified Local Coastal Program (LCP); California Coastal Commission Monterey Bay ReCAP.

Staff recommendation ...**Approval with Conditions**

Staff Note: This application was previously scheduled for a June 13, 2002 hearing. However, at the June 13, 2002 hearing, partly due to the fact that a staff report addendum was issued on June 11th, the Applicant requested that the hearing be postponed to a future date. The Applicant is allowed one such postponement as a matter of right (pursuant to California Code of Regulations Section 13073); future requests for postponement can be granted at the discretion of the Commission. Staff subsequently rescheduled the application for the August Commission meeting in San Luis Obispo and informed the Applicant of this scheduling in June. As the August meeting approached, the Applicant then requested that this matter be postponed to the September hearing in Los Angeles to allow them additional time with which to address the feasibility of the proposed project with the California State Lands Commission (SLC) and the California Department of Parks and Recreation (DPR) (i.e., the underlying land owner and manager for the majority of the area in which the project is proposed). The item was subsequently postponed, with the understanding that any future postponement would be granted only at the discretion of the Commission (see Exhibit J).

Staff Report Summary

The Pelican Point condominiums represent the southernmost portion of the larger Pajaro Dunes residential community that is a pre-Proposition 20/Coastal Act development constructed on a former sand spit dune located between the Watsonville Slough, the Pajaro River, and the Monterey Bay in south Santa Cruz County. These large 3 and 4 story condominium structures are supported on piles embedded in the former dune sands and are separated from the river/slough areas by an existing wooden pile and lagging wall (also pre-dating coastal permit requirements) that is located along the Applicant's property line. The existing wooden wall has been supplemented over the years with rip-rap and sandbags for which CDPs have not been identified. The urbanized back beach shoreline development at Pajaro Dunes/Pelican Point is an anomaly inasmuch as surrounding land use in this area of the coastal zone consists entirely of coastal agricultural fields with minimal structures extending miles in all directions.

The Applicant proposes to install a driven sheet pile wall to prevent river erosion and scour, to retain inland fill, and ultimately to protect the Pelican Point condominium structures from potential river/ocean storm scour events. The proposed sheet pile wall would be installed on the river/slough side of the existing wooden wall, which was not constructed to adequate depth to prevent against extreme scour events. The proposed sheet pile wall construction area is entirely within an environmentally sensitive habitat area (ESHA) as defined by the Coastal Act, and is also located within a significant public access, recreation, and viewshed area; the majority of the project site is located in an area designated as a Natural Preserve within the *Zmudowski State Beach* unit of the California State Park system, and is otherwise located within a natural area where the Watsonville Slough meets the Pajaro River rivermouth sand spit. The project would also be constructed on public lands, and requires the consent of both State Parks and the State Lands Commission.

The Pajaro Dunes Geological Hazards Abatement District certified a mitigated negative declaration supplemented by additional alternatives and impact analysis per CEQA. Commission staff provided early feedback on the first CEQA document (June 2001) including the recommendation to pursue the all-inland wall alternative if it were feasible (as is being recommended for approval here). Such recommendation built upon similar advice provided to the Applicant's then representatives during their initial project development stage, and prior to the preparation of the first CEQA documents in early 2001 (roughly 1½ years ago). The CEQA mitigation measures identified in the certified negative declaration are included as part of the proposed project description.

The project as proposed would both temporarily (i.e., during construction and its aftermath) and permanently displace and otherwise disrupt significant ESHA and public access within *Zmudowski State Beach*, the Pajaro River and Watsonville Slough. It would also have long term adverse impacts on the public viewshed and on shoreline sand supply dynamics. It is also not clearly understood or stated in the project submittal that the Pelican Point Homeowners are responsible for managing and assuming the risks to existing development at this dynamic River/Slough/Ocean interface. The project as proposed is inconsistent with the resource protective policies of the Coastal Act.

Because of its fundamental inconsistencies with the Act, Staff considered recommending denial of the

proposed project altogether. However, based on the fact that the pre-Proposition 20/Coastal Act wooden wall has effectively hardened the shoreline edge at this location, and to avoid future episodes of more substantial, and potentially emergency, armoring at this location, Staff believes that the best public policy and planning approach at the current juncture is to provide for a replacement wall project in lieu of a series of piecemeal and/or emergency projects (and in lieu of potentially more substantial armoring in the future as a result) provided that Coastal Act inconsistencies can be avoided to the maximum extent feasible.

Towards this end, Staff has explored various alternatives with the Applicant to address the Coastal Act inconsistencies with the project as proposed. Three basic alternatives have emanated from this process. The Applicant's preferred alternative is their proposed project, which is not consistent with the Coastal Act. In particular, this project would involve development in ESHA and on State Parks public lands. The Applicant has also identified as feasible an alternative where portions of the replacement wall would be constructed on the river side of the existing wood wall location, and portions would be constructed on the inland side (i.e., the wall would "undulate" on either side of the current alignment). The third alternative would require the replacement wall to be constructed all on the condominium side of the existing wooden wall. Both of the latter alternatives would include removal of the rip-rap and existing wooden wall elements on the river side on the replacement wall location with associated restoration in this area.

The construction feasibility for each of the alternatives is made difficult (to lesser and greater degrees with respect to the alternatives) because the condominium units were constructed on a sand spit with an inadequate setback (in places) of roughly 10 feet from the property line (and the Pajaro River), and because the Applicant has placed large amounts of rip-rap on both sides of the existing wall, apparently without Coastal Development Permits. Because of this, the area on the river side of the condos is both constricted (between the condos and the existing wooden wall) in places, and occupied in large measure by rip-rap nearest to, and on both sides of, the existing wooden wall. And while the rip-rap was placed in specific locations, and has likely been retained to some degree in the upper sand horizon nearest to the top of the existing wall (where the lagging exists), the rip-rap is likely to have migrated to some degree underground between and below the existing piles in the soft sand slurry (due to the fact that the whole area is a sand dune) creating a rip-rap "minefield" of sorts in the overall project area. Nevertheless, the Commission's senior coastal engineer indicates that there are engineering measures that can be applied during construction to address such construction difficulties and that **all 3 of the replacement wall alternatives could, from a technical standpoint, feasibly be constructed.**

Since sheetpiles cannot be driven through rip-rap, rip-rap must first be removed from any replacement wall alignment. The Applicant's preferred alternative would require that all of the rip-rap on the river side of the existing wall (roughly 500 cubic yards estimated) and about 50 feet of the existing wall itself be removed. The other two alternatives would require removal of most (for the undulating wall alternative) to nearly all (for the all inland alternative) of the existing wall (a total length in the project area of about 550 feet) and rip-rap (estimated at roughly 1,500 cubic yards of rip-rap existing; 1,000 of that estimated on the inland side of the existing wall).

To minimize impacts to listed species in the project area, and based on the requirements of the applicable Federal and State resource agencies, the Applicant has a narrow 3 month window (from mid-September to mid-December) within which to construct the wall.

Estimates for how long any of the project alternatives would take to complete are fraught with uncertainty for several reasons: the dynamics of construction in a constantly changing river/slough environment; the uncertainty of late fall/early winter weather and storm events; the vagaries of the locations of existing rip-rap (and the difficulty in locating, avoiding, and removing same); the types of measures that may be necessary to protect the existing condos during construction; the 3 month maximum construction season; and, of course, the interaction and interplay of each of these. The Applicant's consulting engineers estimate that the Applicant's preferred alternative project could likely be constructed within one construction season, and that the other alternatives may take 2 or more construction seasons.

The Applicant's preferred alternative (i.e., the proposed project) would result in the largest permanent loss of ESHA, but it is estimated that it could be constructed in the shortest amount of time for the lowest cost. The other two alternative wall projects would result in less permanent ESHA loss (up to complete avoidance of permanent ESHA loss with the "all inland" alternative), but would take longer to construct (more than one construction season) and cost perhaps twice as much (for the all inland alternative). The Applicant's all river alternative proposed would retain the existing wooden retaining wall, while the other two alternatives would partially to totally remove the existing wall. None of the alternatives considered (nor the existing wooden wall itself) are designed to protect the site against seismic events. Rather, the purpose of the replacement wall (as well as the existing wall) is to retain the inland sand fill of the condominium site, and to protect the site against extreme river scour events.

Ultimately, an evaluation of the 3 alternative replacement wall projects focuses on the balance between the amount of permanent ESHA loss (for areas where any of the alternatives would cover ESHA permanently), the significance of the temporary ESHA impacts due to construction of the project, and the extremely important principle of avoiding the construction (and associated negative resource impacts) of private shoreline structures on public lands.

Staff has concluded that the most Coastal Act consistent feasible project would be one that provides for a sheetpile wall that is constructed all inland of the existing wooden wall. Such a project has the same set of significant temporary resource impacts as the proposed project, and potentially more should construction difficulties dictate multiple construction seasons, but it eliminates any permanent loss of ESHA that would occur with placement of a wall on the river side of the project. **This is the only alternative that avoids the permanent loss of ESHA as directed by the Act. This is also the only alternative that avoids permanent loss of public lands for purposes of private development**. To mitigate for project impacts, all areas on the river/slough side of the replacement wall, and an area of the Applicant's property immediately north of the subject site containing Watsonville Slough uplands, would be protected by easements and/or other dedications and restored to high quality habitat. In this way, the sheetpile wall project can be considered a repair/restoration project inasmuch as it would be correcting a pre-Coastal Act anomaly to the degree feasible, reclaiming a portion of the former sand spit

dune area currently devoted to urban uses, while at the same time providing for modifications to the existing wall concept to correct design inadequacies relating to actual scour events at this dynamic location, thus simultaneously meeting the Applicant's project objectives. Other requirements are designed to ensure that adequate long term screening, monitoring, and maintenance are included, and that the Applicant assumes all risks for developing in light of the known hazards present at this precarious location, including a prohibition on any future expansion of structures toward the river/slough.

As so conditioned, Staff recommends approval.

Staff Report Contents

I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-01-111 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval

A. Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

B. Special Conditions

1. **Revised Sheetpile Wall Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit Revised Sheetpile Wall Plans to the Executive Director for review and approval. The Revised Sheetpile Wall Plans shall be substantially in conformance with the plans submitted to the Coastal Commission (*Pelican Riverwall Repair Plan* by Haro, Kasunich and Associates Inc. dated received in the Coastal Commission's Central Coast District Office January 25, 2002) but shall show the following changes to the project:

   (a) Undulating Wall. The sheetpile wall shall be located in the alignment identified on page 1 of exhibit E with the exception that the wall location shall be shifted north (toward the condominium buildings) in those locations noted as "Building B realignment inland" and "Building C realignment inland" on page 1 of Exhibit E so that no portion of the sheetpile wall is constructed on the Pajaro River side of the existing wood pier and lagging wall footing location.

   (b) Removal of Structures on the Pajaro River/Watsonville Slough Side of the Undulating Wall. The Revised Sheetpile Wall Plans shall provide for the removal of the existing wood pier and lagging wall, and the removal of all rip-rap, sand bags, and other associated structures from the Pajaro River/Watsonville Slough side of the undulating sheetpile wall location. The Revised Sheetpile Wall Plans shall indicate that rip-rap and sand bags may be used to back fill on the inland (condominium) side of the sheetpile wall, but that all other structures removed, including any rip-rap or sand bags not used for back fill purposes, shall be removed off-site and appropriately disposed of.

   (c) Construction Time Frame. The Revised Sheetpile Wall Plans shall indicate that construction staging and preparation may commence on the inland (condominium) side of the existing wood pier and lagging wall in the locations identified as necessary, but that construction activities on the river/slough side of the existing wood pier and lagging wall shall be limited to between September 15th and December 15th inclusive. All construction debris and materials shall be removed in their entirety from the river/slough side the existing wood pier and lagging wall and/or the sheetpile wall by December 15th.

   (d) Notification. The Revised Sheetpile Wall Plans shall indicate that the Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 days prior to commencement of any construction activities on the river/slough side of the existing wood pier and lagging wall, and immediately after all construction debris and materials have been removed in their entirety from the beach (on or before December 15th).

   (e) Construction Methods and Schedule. The Revised Sheetpile Wall Plans shall specify all

construction schedules, all phasing, and all construction methods to be used, including but not limited to all methods to be used to stabilize condominium buildings B and C during construction, and all methods to be used to close down the construction site should construction span multiple construction seasons.

The Permittee shall undertake development in accordance with the approved Revised Sheetpile Wall Plans. Any proposed changes to the approved Revised Sheetpile Wall Plans shall be reported to the Executive Director. No changes to the approved Revised Sheetpile Wall Plans shall occur without a Commission amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.

2. **Revised Restoration Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a Revised Restoration Plan to the Executive Director for review and approval. The Revised Restoration Plan shall be substantially in conformance with the revegetation plans submitted to the Coastal Commission (*Revegetation Plan for the Pelican Riverwall Repair Project* by Elkhorn Native Plant Nursery dated January 11, 2002) but shall show the following changes to the Plan:

   (a) Expanded Restoration Area Adjacent to Sheetpile Wall. The Revised Restoration Plan shall provide for high quality dune and slough restoration of all areas located on the Pajaro River/Watsonville Slough side of the revised undulating sheetpile wall location (identified in the approved Revised Sheetpile Wall Plans per Special Condition 1 above); see page 2 of exhibit E for graphic depiction of this area.

   (b) Expanded Restoration Area Adjacent to Watsonville Slough. The Revised Restoration Plan shall provide for high quality wetland/upland restoration and habitat enhancement in the area north of the sheetpile wall as shown on page 2 of exhibit E. All invasive non-natives shall be removed from this area, and significant trees shall be retained.

   (c) Coastal Strand. The Coastal Strand restoration planting shall be planted as plugs, and not with a seed mix to ensure a higher level of success for this restoration component.

   (d) Cascading Vegetation. The planter box plant species mix previously specified for the upper planted box area (and intended to cascade over the top of the wall towards the river/slough) shall be supplemented with appropriate native species endemic to the Pajaro River Lagoon area and that are known to provide trailing vegetation capable of cascading a minimum of five feet on the river/slough side of the sheetpile wall. Such plantings shall be kept in good growing condition and replaced as necessary to maintain the minimum five feet of screening over the life of the project.

   (e) Reference Plots. High quality reference plots shall be identified, and baseline conditions within them provided, for each of the different type of plant communities being restored pursuant to the plan. The reference plots shall then be used as the control for the success criteria established.

(f) Interim Success Criteria. Interim success criteria for years 1 through 4 shall be established based upon making appropriate progress towards achieving the year 5 success criteria already identified. Years, as used in this context, shall be measured from the date that initial planting is completed.

(g) Signage and Trails. The Plan shall provide for the placement of informative signage inland of the restoration areas (i.e., on the condominium side of the restoration areas) that identify the restoration areas, provide information about the restoration areas, prohibit domestic animals, and minimize pedestrian access through the restoration areas. Any pedestrian access trails shall be identified in the Plan and shall be: limited to the area north of the sheetpile wall (and prohibited otherwise); limited to those absolutely necessary for providing necessary through access; minimized in width and length; and sensitively designed (i.e., boardwalks).

(h) Monitoring. The monitoring section of the Plan shall be supplemented to indicate as follows:

All restoration planting areas shall be monitored and maintained by a qualified coastal dune/wetland biologist to achieve the required minimum performance standards. Monitoring of the restoration shall include both quantitative and qualitative evaluation. At the least, quantitative assessment shall record plant density and relative composition, native plant cover percentages, and the general amount of exotic vegetation remaining. At the least, qualitative assessment shall describe the general health and vitality of the restored vegetation.

On a quarterly basis (as calculated from the initial planting complete date), all restoration areas shall be inspected and monitored by a qualified coastal dune/wetland biologist. Such quarterly monitoring is meant to be an overview of site restoration conditions within which any minor remedial maintenance actions are to be initiated as necessary to achieve required minimum performance standards. All quarterly monitoring observations and maintenance actions shall be recorded. Photo documentation shall be provided.

On an annual basis (as calculated from the initial planting complete date), the site shall be rigorously inspected and monitored by a qualified coastal biologist. Such annual monitoring meant to provide an exacting basis for measuring compliance with the required minimum performance standards, and implementing appropriate maintenance response as necessary. Monitoring results shall be compared against the identified reference plots to measure success.

(i) Monitoring Reports. The reporting section of the Plan shall be supplemented to indicate as follows:

Reports of all restoration monitoring (that clearly describe all quarterly and annual monitoring, maintenance, and remedial activities and observations) shall be prepared annually by a qualified coastal dune/wetland biologist. The annual reports shall be submitted no later than September 15th of each year for the review and approval of the Executive Director. The annual reports shall be submitted until it has been confirmed in writing by of the Executive Director that all success

criteria have been achieved; at a minimum, at least five such annual reports shall be submitted.

If any annual report should identify a failure to meet any of the minimum success criteria, or a failure to meet any other standards consistent with current professional dune and slough restoration standards, the report shall include appropriate recommendations for remedial measures for achieving these minimum standards. Each approved monitoring report shall provide for a list of the remedial measures, if any, that are to be implemented and a timeline for their implementation. Such remedial measures shall be undertaken as directed by the approved monitoring report. All reports shall be signed and dated.

(j) Maintenance. The Plan shall make clear that all maintenance shall be conducted by a qualified coastal dune/wetland restoration specialist.

(k) Timing and Phasing. The Plan may provide for phased restoration as different components of the sheetpile wall are installed. Such phasing shall follow the order in which the wall is to be installed (i.e., working from the Watsonville Slough area towards the Monterey Bay). In addition, restoration of the area adjacent to Watsonville Slough north of the construction area (as identified above in this condition), can commence concurrently with construction of the sheetpile wall because it is located out of the limits of work for the sheetpile wall. At a minimum, the restoration of the area adjacent to Watsonville Slough north of the construction area shall be initially planted prior to December 15, 2003. At a minimum, any area for which the sheetpile wall has been installed by December 15, 2003 shall have both the area on the river/slough side of such completed sheetpile wall section initially planted prior to December 15, 2003, and the area in the planter boxes initially planted prior to December 15, 2003.

(l) As-Built Restoration Plans and Planting Complete Date. The Plan shall indicate that As-Built Restoration Plans, describing all initial restoration planting measures undertaken and their location, shall be submitted for the Executive Director's review and written approval within three (3) months of completion of the approved Sheetpile Wall. The As-Built Restoration Plans shall identify the date when all such plantings were completed ("initial planting complete date"); said date to be used to determine time-frames for the required monitoring, maintenance and reporting parameters

The Permittee shall undertake development in accordance with the approved Revised Restoration Plan. Any proposed changes to the approved Revised Restoration Plan shall be reported to the Executive Director. No changes to the approved Revised Restoration Plan shall occur without a Commission amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.

3. Conservation Easement. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate an easement to a political subdivision, public agency or private association approved by the Executive Director for the protection of

environmentally sensitive Pajaro River and Watsonville Slough habitat (Conservation Easement). The Conservation Easement shall apply to that area identified on page 3 of exhibit E as the "Conservation Easement/Ownership Area." At the discretion of the Applicant, the Conservation Easement may alternatively provide for the outright dedication of fee ownership for the Conservation Easement/Ownership Area, either in whole or in part (e.g., an easement over the land north of the sheetpile wall within the Conservation Easement/Ownership Area, and a direct dedication of fee title for the remainder of the areas within the Conservation Easement/Ownership Area). The recorded document shall include a legal description and a site plan of: (a) the Conservation Easement/Ownership Area, with any sub-areas within this larger area designated for easement versus outright dedication likewise identified; and (b) the Permittee's parcels involved (APNs 052-343-10, 052-344-10, 052-345-05, 052-342-05, and 052-331-07). The recorded document shall indicate that no development, as defined in Section 30106 ("Development") of the Coastal Act, shall occur in the Conservation Easement or ownership area except for habitat enhancement, restoration, and maintenance activities specified in the restoration plan approved pursuant to coastal development permit 3-01-111 (see Special Condition 2) and/or future restoration plans that may be approved by the Coastal Commission through amendment to coastal development permit 3-01-111 or by separate coastal development permit.

The offer to dedicate a Conservation Easement shall be recorded free of prior liens and encumbrances which the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording.

4. **As-Built Revetment Plans.** WITHIN THREE (3) MONTHS OF COMPLETION OF SHEETPILE WALL CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval As-Built Plans of the sheetpile wall structure that include permanent surveyed benchmarks for use in future monitoring efforts described in relation to the National Geodetic Vertical Datum (NGVD) as follows: (a) one or more benchmarks shall be located inland of the as-built sheetpile wall; and (b) benchmarks shall be located on the river/slough edge of the top of the as-built sheetpile wall at each location where the wall changes direction in site plan view and at either end of the wall. The As-Built Plans shall identify the extent of the as-built sheetpile wall structure in site plan and cross-section views, and shall identify all condominium, path and road structures within the immediate vicinity (i.e., roughly within 150 yards of the sheetpile wall). The As-Built Plans shall indicate vertical and horizontal reference distances from the inland benchmark(s) to the as-built sheetpile wall benchmarks. The survey points shall be identified through permanent markers, benchmarks, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years.

The As-Built Plans shall be submitted with certification by a licensed geotechnical engineer, acceptable to the Executive Director, verifying that the sheetpile wall structure has been constructed in conformance with the approved Revised Sheetpile Wall Plans described by special condition 1

above.

5. **Monitoring.** The Permittee shall ensure that the condition and performance of the as-built sheetpile wall is regularly monitored by a licensed geotechnical engineer. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact its future performance, and identify any structural damage requiring repair to maintain the as-built sheetpile wall profile. At a minimum, the Permittee shall submit to the Executive Director for review and approval a monitoring report once every five years by May 1st (with the first report due May 1, 2008) for as long as the sheetpile wall exists at this site. Each such report shall be prepared by a licensed geotechnical engineer and shall cover the monitoring evaluation described in this condition above. Each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the as-built sheetpile wall.

6. **Shoreline Development Stipulations.** By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that:

   (a) No Further Encroachment. Any future response to coastal hazards (including but not limited to coastal hazards associated with shoreline erosion, river erosion and scour, wave attack, etc.) requiring the placement of any type of protective structure, including, but not limited to, modifications to the as-built sheetpile wall, shall be constructed inland (i.e., on the condominium side) of the river/slough edge of the as-built sheetpile wall. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-01-111 that defines the river/slough edge of the as-built sheetpile wall.

   (b) Sheetpile Wall Screening. That portion of the sheetpile wall that is exposed above sand/slough levels on the river/slough side of the sheetpile wall shall be screened from view (as seen from the river/slough side) by a dense cascading screen of native vegetation. At a minimum, such screening shall cover the top five feet of the sheetpile wall. A Restoration Plan has been approved pursuant to coastal development permit 3-01-111 that specifies the native planting palette and the required vegetation maintenance parameters. All native plantings shall be maintained in good growing conditions and shall be replaced as necessary to maintain the required screen over the life of the project.

   (c) Sheetpile Wall Maintenance. It is the Permittee's responsibility to maintain the as-built sheetpile wall and vegetative screening in a structurally sound manner and its approved state. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-01-111 that defines the profile of the as-built sheetpile wall. The approval of coastal development permit 3-01-111 does not obviate the need to obtain future permits for any future maintenance and/or repair episodes. The Permittee agrees to apply for a coastal development permit, and any and all other permits required, for any proposed future maintenance and/or repair episodes.

   (d) Restoration Area Maintenance. A Restoration Plan has been approved pursuant to coastal development permit 3-01-111 that includes measurable minimum success criteria for restoration

areas (located on both sides of the sheetpile wall, and an area north of the sheetpile wall), and it is the Permittee's responsibility to maintain the restoration areas pursuant to the minimum success criteria identified in the Restoration Plan over the life of the residential project.

(e) Debris Removal. The Permittee shall immediately remove all debris that may fall from the area inland (i.e., on the condominium side) of the sheetpile wall into the area on the river/slough side of the sheetpile wall.

(f) Assumption of Risk, Waiver of Liability and Indemnity Agreement. The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from coastal erosion, river erosion and scour, slough erosion and scour, wave and storm events, dune and other geologic instability, and the interaction of same; (ii) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

7. **Other Agency Review.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project as approved by coastal development permit 3-01-111 have been granted by both the underlying land owner (i.e., the California State Lands Commission) and land manager (i.e., the California Department of Parks and Recreation) of the Pajaro River/Watsonville Slough area involved in the project.

8. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittee shall not use this permit as evidence of a waiver of any public rights which may exist on the property.

9. **Project Completion.** The approved sheetpile wall (pursuant to Special Condition 1 above) and all required restoration (pursuant to Special Condition 2 above) shall be completely installed by December 15, 2005. Any deviation from the December 15, 2005 completion deadline thus established shall require an amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.

10. **Deed Restriction.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating

that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

III. Findings and Declarations

The Commission finds and declares as follows:

A. Project Location and Background

The proposed project is located in southern Santa Cruz County where the Pajaro River meets the Monterey Bay. The upcoast edge of the Pajaro River rivermouth was artificially fixed at this location by the construction of the Pelican Point portion of the larger Pajaro Dunes residential development prior to the coastal development permitting requirements of Proposition 20 (the Coastal Initiative) and the Coastal Act. The Pajaro Dunes/Pelican Point residential development occupies the former sand spit area located between Watsonville Slough (running parallel to the ocean) and the Monterey Bay, with the Pelican Point condominiums themselves defined by a series of 3 and 4 story buildings supported on piles at the River's edge (see photos in exhibit A). The residential development is isolated from other more inland urban development (the nearest being the City of Watsonville roughly 3 miles inland) and is surrounded inland as well as up and downcoast by miles of agricultural fields.

The project would take place in the sandy Pajaro River rivermouth area (running perpendicular from the Monterey Bay back inland to Watsonville Slough) and Watsonville Slough proper (where it enters the Pajaro River). Other than a small portion of the proposed project area (where Watsonville Slough meets the Pajaro River) the majority of the project would take place on lands owned by the California State Lands Commission within the *Zmudowski State Beach* State Park's unit. See exhibit A for project location.

The boundary between the Pelican Point condominiums and the Pajaro River proper is demarcated by an existing wooden pile and lagging wall that was initially installed when the condominium structures were constructed in the late 1960s and early 1970s. This existing wooden pile wall extends inland perpendicular to the Bay from the Pajaro Dunes revetment (a large revetment that runs along the shoreline length of the Pajaro Dunes development for roughly 1 mile, terminating at the mouth of the River) to a point roughly 650 feet inland with a return extending back upcoast along the edge of Watsonville Slough. The wooden pile wall includes tie backs to "dead man" pilings located under the

condominium buildings themselves. The existing wooden pile wall is located along the Pelican Point property boundary. See exhibits A and B for location of the existing pile wall.

The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden pile, and along roughly 100 feet of the "headland" of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant's estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such placement.[1] In addition to the rock placed, a concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work was never recognized by the required follow-up CDP.

Thus, due to pre-Proposition 20/Coastal Act development (i.e., the condominiums, wooden pile wall, and related inland development), and due to shoreline armoring that appears to have been placed without required CDPs, the existing conditions at the site are as follows:

- There exists a wooden pile and lagging wall with a reinforced concrete whaler beam extending inland from an ocean-fronting revetment (not the subject of this application) perpendicular to the Monterey Bay to the Watsonville Slough (with a wall "return" extending back upcoast along the slough itself). The existing wall includes tiebacks that are connected inland to deadman piles that are located under the inland condominium units. The existing wall is supplemented by rip-rap and sandbags along both its inland and river sides. The existing wall is located along the Applicant's property line and is the dividing point between the inland urban development and Pajaro River/*Zmudowski State Beach*. According to the Applicant's geotechnical reports, the original purpose of the existing wall was to prevent the Pajaro River from eroding into the building area, and to support the fill that defines the inland condominium development area.

- There exists a large condominium development with 87 units spread over seven separate 3 and 4 story structures. These condominium units are at the downcoast end of the overall larger Pajaro Dunes residential area that extends roughly a mile upcoast from the Pajaro River between the Monterey Bay and Watsonville Slough. The condominium structures are supported atop pilings resting in the beach sands. According to the Applicant's geotechnical reports, the pilings on which the condominiums are supported are meant to function independent of the wooden pile and lagging wall running along the river.

See exhibit A for photos of the project area.

[1] See "Alleged Violation" finding below.

B. Project Description

The Applicant proposes to install a driven sheetpile wall supported by steel I-beam "king piles" on the river side of the existing wooden wall. The 3-foot wide I-beams would be driven approximately 65 feet below existing grade (roughly -53 feet NGVD), at a 6-foot on center spacing, with 2-foot wide interlocking and angled sheetpiles driven roughly 35 feet below existing grade (or roughly –23 NGVD). The face of the sheetpile wall would be roughly 5 feet further into the rivermouth/sandy beach area than the existing wooden pile and lagging wall. The wall would run linearly roughly 715 feet, with roughly 85 feet of that for a new return section extending upcoast along the Watsonville Slough "headland" where the Slough meets the River. The top of the proposed sheetpile wall would be slightly higher (about a foot or so on average) than the existing wooden wall. The existing wall would remain in place and would be covered with backfill. All existing rip-rap materials on the riverside of the existing wood wall (estimated at 500 cubic yards) would be removed and either used for back fill purposes inland of the sheetpile wall and/or removed off site. See exhibit C for proposed sheet-pile project plans.

The proposed project also includes the following elements:

- Construction would be limited to a 3 month period (between September 15th and December 15th) to avoid snowy plover breeding and steelhead migration periods.

- Construction areas would be limited to the roughly 40 foot area riverward of the existing wall, with a narrower area of construction footprint adjacent to Watsonville Slough. All construction areas would be restored with native wetland and coastal strand dune species (as applicable) following project completion.

- Construction BMPs are required to minimize and/or eliminate impacts to the Pajaro River and Watsonville Slough, and pre-construction surveys for listed species are required.

- Areas inland of the constructed sheetpile wall between the condominium buildings would be revegetated with native dune species, and cascading plants would be established at the river edge of the sheetpile wall to provide viewshed screening. The sheetpiles themselves would be coated with a sandy beach color epoxy.

- The Applicant would deed roughly 4,500 square feet of beach lands in their fee-title ownership located on the river side of the sheetpile wall to an appropriate resource management entity, and would offer a conservation easement over about an acre of their property extending upcoast along Watsonville Slough.

The Applicant's proposed project (as summarized by excerpted sections of their CEQA documents and CEQA mitigation measures) is attached as exhibit B.

The Applicant's proposed project has been reviewed and signed-off (with mitigations incorporated into the project as generally described above) by the California Department of Fish and Game (CDFG), the United State Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the

Regional Water Quality Control Board (RWQCB), the Army Corps of Engineers (ACOE), and Santa Cruz County.

As of the date of this staff report, however, the land owner (the California State Lands Commission (SLC)) and the land manager (the California Department of Parks and Recreation (DPR)) of the area in which the majority of the project would take place have not consented to the Applicant's proposed project. In fact, DPR indicates that if it is feasible to construct a replacement wall inland of the existing wall location, then the wall should be constructed off of State Parks land, and that development on public lands should be prohibited. SLC has indicated a reluctance to entertain a land swap (such as that proposed as part of the project by the Applicant) if DPR is not interested in managing the swapped land; DPR has indicated that they are not interested in managing the swapped land. Thus, the positions of the land owner and manager of the project area do not support the project as proposed. Should SLC not agree to allow a wall to be constructed on State-owned lands, then the Applicant's proposed project could not be constructed.

C. Coastal Development Permit Determination

1. Applicable Policies

Wetland and Other Environmentally Sensitive Habitat Areas (ESHAs)

The Coastal Act is very protective of sensitive resource systems such as wetlands, dunes and other environmentally sensitive habitat areas (ESHAs). The Coastal Act defines environmentally sensitive areas as follows:

> ***Section 30107.5.*** *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Almost all development within ESHAs is prohibited, and adjacent development must be sited and designed so as to maintain the productivity of such natural systems. In particular, Coastal Act Section 30240 states:

> ***Section 30240(a).*** *Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> ***Section 30240(b).*** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Article 4 of Chapter 3 of the Coastal Act also describes protective policies for the marine environment

and specifically calls out wetland resources. Coastal Act Sections 30230 and 30231 provide:

> ***Section 30230.*** *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*
>
> ***Section 30231.*** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

In addition, Coastal Act Section 30233(a), 30233(c) and 30233(d) specifically address protection of resources like Pajaro River and Watsonville Slough. In particular, Coastal Act Section 30233 limits development in wetlands to a few limited categories where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects:

> ***Section 30233(a).*** *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
>
> *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational*

piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30233(c). *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the l9 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.…*

Section 30233(d). *Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

Section 30236 specifically describes the limited uses for which stream alteration is allowed. Section 30236 states:

Section 30236. *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Public Access, Recreation, and Views

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. This includes protecting public visual access as well. In particular:

30210. *In carrying out the requirement of Section 4 of Article X of the California Constitution,*

maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

30211. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

30212(a): *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,(2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*

30221. *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b) also protects parks and recreation areas such as the beach and surfing area seaward of the site. Section 30240(b) states:

30240(b). *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Coastal Act Section 30251 details specific public viewshed protections. Section 30251 states:

30251. *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Shoreline protective devices

Section 30235 of the Coastal Act:

> ***30235.*** *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

Long term stability

Section 30253 of the Coastal Act also addresses the need to ensure long-term structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future:

> ***30253.*** *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. …*

Policy Summary

In sum, the Coastal Act requires protection and preservation of significant resources, public access and recreation, and viewshed areas such as exist at the project site. The Act also allows for shoreline structures to protect existing endangered development, and allows flood control projects in rivers under certain criteria. Non-resource development within ESHAs is prohibited, and any development authorized must be mindful of the policies protecting the general rivermouth environs and its inhabitants.

2. Consistency Analysis

Project Area Coastal Resources

The majority of the project would take place in the Pajaro River rivermouth area, with a smaller portion taking place within Watsonville Slough (where it outlets into the Pajaro). The rivermouth area in question is infrequently and seasonally covered by Pajaro River waters. As of the date of this staff report, the typical sand spit dune berm is in place and the Pajaro meanders towards an entry point at the Monterey Bay roughly a quarter-mile downcoast from the project site. A summer lagoon generally forms in this area during the summer months and is generally seasonally breached (both naturally and artificially in the past) in late fall or early winter.

The project area provides known habitat for such listed species as Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. These species are either federally and/or state-listed as endangered (Brown

pelican and long-toed salamander), threatened (goby, steelhead, snowy plover, brown pelican (State), and spineflower), or either a candidate for listing or a species of special concern (pond turtle and legless lizard). The Pajaro River and its associated estuary and lagoon are Federally-designated critical habitat for steelhead. Watsonville Slough is the namesake branch of the larger Watsonville Slough System, previously recognized by the Commission as probably the largest and most significant wetland habitat between Pescadero Marsh (in San Mateo County) to the north and Elkhorn Slough (in Monterey County) to the south. The entire Watsonville Slough System has been designated by CDFG as an "Area of Special Biological Importance." *Zmudowski State Beach*, the rivermouth/dune area within which the project would be installed, is one of 28 critical habitat areas for snowy plover designated along the west coast. The project area is designated by State Parks in the *Zmudowski State Beach* general plan as a Natural Preserve; a designation within which development, other than habitat-related and/or passive recreational development, is essentially prohibited. The proposed project area represents a significant and prolific natural resource providing biologically productive habitats for listed and non-listed plant, aquatic, and land species, including important foraging, roosting, breeding and rearing habitat. Accordingly, the entire project area constitutes ESHA within the meaning of the Coastal Act.

In addition, when dry, the sand dune area (that is sometimes inundated with wave wash and/or river waters) provides for low intensity recreational public access to the general rivermouth environs. Because the intervening Pajaro Dunes/Pelican Point development blocks public access to the mile of shoreline upcoast of this site (with the primary vertical access provided at the Palm Beach unit of State Parks just north of the Pajaro Dunes revetment and its related inland development), and because of the natural river and slough barriers to easy (dry) access, public access to this area is limited by its remoteness. Given the sand-swept and remote nature of this portion of *Zmudowski State Beach*, and given the significant resource values here, such low intensity level of recreational access is probably appropriate. That said, these same factors that limit access make this an especially good example of a high resource value area, appropriate for low intensity public access. Remaining opportunities for access such as this, in reach of more urbanized/populated areas are relatively few, and public access to areas like the Pajaro Rivermouth should be maximized consistent with its carrying capacity for such use.

In addition, partly because of its remote nature, and partly because the general lack of surrounding development (with the obvious exception of the Pajaro Dunes/Pelican Point development), the project area also represents a significant public viewshed. See Exhibit A for photos of the area.

Thus, the project area is all ESHA and a significant public recreational access and viewshed area.

Project As Proposed Inconsistent with the Coastal Act

As proposed, the project would permanently displace a portion of the dune rivermouth area (roughly 3,000 square feet) and would permanently displace a portion of the wetland of Watsonville Slough (roughly 450 square feet). Together, nearly 3,500 square feet of ESHA would be lost permanently, the majority of which is located within the State Lands owned/DPR managed *Zmudowski State Beach* unit. It is not clear that such a project is allowed pursuant to DPR's Natural Preserve designation for the project area, and DPR has not consented to the project as proposed by the Applicant (see Exhibit G, p.

1). In other words, publicly owned, managed, and preserved ESHA would be displaced to allow for a sheetpile wall to be installed for the private benefit of the inland landowners. Such development within ESHA and wetland is inconsistent with Coastal Act Section 30240 and 30233, which provide for a very limited subset of development types within these natural resource areas.

In terms of public access and recreation, the project as proposed would also forever remove an area of State Beach to replace it with private development. Although the immediate area lost provides limited access in and of itself, the overall area available for public access would be reduced in size. As discussed above, a primary reason this resource area is conducive to providing public access is its windswept remoteness; a quality that is enhanced by the overall size of the area in question. Although the Applicant proposes to offset this area lost by giving title to the portion of the beach sandspit/slough owned by the Applicant in fee title (roughly 4,500 square feet),[2] the area owned in fee title by the Applicant is already de facto part of the existing natural resource and access area, and it cannot be distinguished from the surrounding beach/slough areas. In other words, deeding fee title helps in perfecting a public legal ownership of the resource area in question, but does little to offset the permanent loss of dune/slough real estate associated with the proposed structure. Moreover, given its characteristics and location, it is possible that the area in question is already public trust and became State lands when California became a state (i.e., because it likely was part of the river/slough at that time as well).[3] The permanent loss of public access and recreation area is inconsistent with Coastal Act Sections 30210, 30211, 30213, 30221, 30223, and 30240(b).

In addition, as described above, the access point to the affected stretch of beach is limited to the Palm Beach State Park unit access roughly one mile upcoast of the proposed project site. Palm Beach is located at the terminus of Beach Drive where it meets the shoreline, and fronts the private entrance to the Pajaro Dunes/Pelican Point residential development. This private entrance is blocked by an electronic gate and a guard house, and the general public is not allowed through. Because the intervening Pajaro Dunes/Pelican Point development is located along the former sand spit located between Watsonville Slough, the Pajaro River and the Monterey Bay, public access to the project site area is made by accessing the sandy beach at Palm Beach, and navigating along the narrow beach occupied in large measure by the existing mile long revetment fronting Pajaro Dunes/Pelican Point; access along the beach is oftentimes blocked when the Bay reaches the rip-rap. Although several stairways exist along the existing wooden wall providing access to the subject sandy rivermouth area in question, the general public is prohibited from both entering the Pajaro Dunes/Pelican Point development at the Beach Road entrance and making use of the developed road and parking areas therein, and prohibited from using the stairways themselves. Because adequate access does not exist nearby, and because the Applicant has not proposed providing public access through to the subject sandy rivermouth area, the project as proposed is inconsistent with Coastal Act Section 30212.

In terms of public viewshed impacts, the proposed project would be slightly taller (above grade) than the

[2] This 4,500 square foot area is located on the portion of the Applicant's parcel that is on the river side of the existing wooden wall at the headland where the Watsonville Slough meets the Pajaro River (see exhibits A and E).

[3] A formal SLC determination on this point has not yet occurred.

existing wood lagging wall. It would also replace the existing wood lagging facade of the existing wall with a metal wall composed of panels with rigid and uniform angles. Although the existing wooden pile wall with a large concrete whaler beam at its crest is hardly "natural," the aged wood materials are more sensitive to the beach area public viewshed aesthetic than would be the metal wall proposed. Due to the change in materials in tandem with the increased mass in the viewshed, the public viewshed would be negatively impacted by the wall proposed. The Applicant proposes to offset the impacts from the metal wall proposed by colorizing the wall a sandy color to match the beach, by replanting dune strand and wetland plants (as appropriate) in the construction area fronting the wall, and by installing planter boxes atop the wall to allow for cascading vegetation to camouflage the wall as seen from *Zmudowski State Beach*. These mitigations are appropriate. However, the species, densities, and locations of vegetation proposed to screen the wall are inadequate with which to provide effective screening, particularly the cascading plant species identified inasmuch as they are not species expected to effectively cascade. As such, the project as proposed is inconsistent with Coastal Act Sections 30251 and 30240(b).

In addition to the permanent loss of ESHA and sandy beach area, the proposed project would result in temporary negative impacts to surrounding ESHA and beach from the estimated three months of construction. The construction zone would occupy nearly an acre of the rivermouth/slough area. Temporary dewatering of a portion of Watsonville Slough would be required. The Applicant proposes to restore the area affected by construction. However, cleaning up the mess made by construction does not mitigate for the roughly three months of construction activities during which time the affected area will be off-limits to access and within which resource values will be effectively eliminated for that time. Furthermore, as described above, the site area is part of a fairly remote natural resource area. Three months of construction noise, lights, vibration (from the driving of substantial piles), and overall construction activities and human presence will also be expected to adversely affect listed (e.g., steelhead) and unlisted species and their habitat outside of the construction zone established (and in the surrounding biologically significant Watsonville Slough, Pajaro River, and River Lagoon/Estuary areas). For example, although the literature appears to be sparse on the potential impact of sheet pile driving on salmonids, it appears that the shock waves generated by pile driving can potentially disrupt foraging behavior, delay migratory progress, and disguise the sound of approaching predators (and/or cause the fish to become accustomed to the sound so that they don't hear the approach of a predator). Recent news reports indicate that in some cases, sheetpile driving actually caused popping of the swim bladders of fish in nearby waters.[4] It seems clear, in any case, that any snowy plovers wintering at the mouth of the Pajaro River (up to 40 have been documented wintering in the past),[5] will be displaced due to sheetpile driving.

Furthermore, although the direct construction impacts themselves would be expected to end when the construction activities themselves ended, the effect of such construction in and adjacent to significant

[4] San Francisco Chronicle reports on repair work associated with the Benicia-Martinez Bridge, and Commission staff personal communication with Becky Ota, CDFG. Unlike the proposed project, however, the pile driving in the Benicia-Martinez Bridge project occurred directly in the water. In the Pelican Point case, the intervening sand would be expected to attenuate such impacts somewhat, but the degree to which they would be lessened is unclear.

[5] Commission staff personal communication with Carleton Eyster from the Point Reyes Bird Observatory (PRBO).

ESHA on the short-term productivity of the affected habitat areas could be felt for many years. In other words, the reduced habitat area productivity during the construction period would not be expected to correct itself instantaneously when construction ended, and its effects may linger for some time, affecting habitat values until previous productivity levels have been reestablished. In addition, the amount of time necessary for such a reestablishment of habitat value also represents lost productivity in and of itself (because this time period when the habitat areas might otherwise be thriving would not be available as a foundation for encouraging habitat values here). Thus, not only will there be the construction period direct and indirect affects, but a "hangover" period of reduced habitat productivity as the habitat recovers over time.

The project includes a series of construction BMPs and restricted timing provisions to help lessen these negative impacts, but they cannot be eliminated. As partial mitigation for this and other impacts of the project, the Applicant proposes a conservation easement over a portion of land owned in fee title by the Applicant but occupied by the Watsonville Slough and its related uplands (to the northwest of the proposed project site area). However, as with the deeding of the beach area proposed, this area is already Slough. And while perfecting an easement applicable to this resource area is beneficial, absent associated restoration (none is proposed), its utility as a mitigation tool is limited.

As a result of these temporary and indirect ESHA and wetland impacts, the project as proposed is inconsistent with Coastal Act Sections 30230, 30231, 30240 and, because there is a less environmentally damaging feasible alternative (see below), 30236.

The project includes a new portion of wall extending upcoast along the Watsonville Slough. This new portion of wall is roughly 85 feet in length. Although such wall can feasibly be considered a return to correct against end effects based on the scope of the project and the specific circumstances of this case, it would lead to additional armoring that would block the transport of sand generating sediments into the shoreline sand supply system. The Applicant's engineer estimates that the proposed return portion of the wall would retain roughly 12 cubic yards of sand per year. The project as proposed does not include mitigation for this loss of sand to the shoreline sand supply. As such, the proposed project is inconsistent with Coastal Act Section 30235.

Pursuant to Coastal Act Section 30253, development is to be designed, sited, and built to allow for natural shoreline processes to occur without creating a need for additional more substantive armoring. Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. Coastal Act Section 30253 requires that the proposed project assure structural stability without the need for additional armoring. Although it is likely that additional armoring will not be necessary in the future should the proposed project be installed, the project as proposed does not include a corresponding implementing mechanism to ensure that this is the case. As such, the proposed project raises questions of consistency with Coastal Act Section 30253.

Finally, the experience of the Commission in evaluating the consistency of proposed developments with Coastal Act policies regarding development in areas subject to problems associated with geologic instability, flood, wave, river, and/or erosion hazard, has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, or other such occurrences. Development in such dynamic environments is susceptible to damage due to such long-term and episodic processes. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden on the people of the State for damages, applicants are regularly required to acknowledge site geologic risks and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. The project as proposed does not include any such assumption of risk. As such, the proposed project again raises questions of consistency with Coastal Act Section 30253.

In sum, the project as proposed raises core Coastal Act inconsistencies relating to ESHA, wetlands protection, public access and recreation, the public viewshed, shoreline processes, and long-term structural stability.

Alternatives Considered

In light of the various Coastal Act inconsistencies of the proposed project, one option considered was denial of the proposed project. However, this may not be the best policy and planning option overall. First, the existing wood and lagging wall and condominium structures pre-date Proposition 20 and the Coastal Act permitting requirements, and they have established a hardened edge (both in the proposed project area and along the seaward frontage where the existing revetment lies). Second, if a replacement project was not approved, additional piece-meal armoring efforts meant to retain development at this precarious location are likely to continue unabated in the future (as evidenced by the fact that repairs have taken place and additional armor stones have been placed almost continuously over the years to retain the fill below the Pelican Point condominiums). Third, the existing wood lagging wall does not extend below the established scour levels for this part of the Pajaro River. Finally, the existing condominium structures were installed on piles embedded in dune sands that appear to be inadequate of themselves to protect against the erosion threat present here. Thus, provided that the serious Coastal Act inconsistencies can be avoided, particularly the proposed incursions onto public land, a replacement shoreline protection project is appropriate to avoid future erosion problems and potential substantial armoring in the future as a result.

Construction of a replacement wall project in this location, however, is made difficult by the existing physical conditions in two main subject areas: (1) the existing condominium units are, in two locations, located within 10 feet of the existing wooden wall, and the removal of the existing wall and related rip-rap in this area and/or the installation of the sheetpile wall at these locations could lead to damage and/or loss of the subject condominium structures themselves; and (2) the existing wood lagging wall is surrounded (inland, riverward, and likely below the pilings themselves) with rip-rap, some of which may be difficult to remove (due to its depth and location adjacent to the condominiums), and that would

prevent piles from being driven where the rip-rap could not be entirely removed.[6] Because of this, the area on the inland side of the existing wall is both constricted (between the condos and the existing wooden wall) in places, and occupied in large measure by rip-rap nearest to, and on both sides of, the existing wooden wall. And while the rip-rap was placed in specific locations, and has likely been retained to some degree in the upper sand horizon nearest to the top of the existing wall (where the existing wood lagging exists), the rip-rap is likely to have migrated to some degree underground between and below the existing piles in the soft sand slurry (due to the fact that the whole area is a sand dune) creating a rip-rap "minefield" of sorts in the overall project area. Thus, because the condominium units were constructed on a sand spit with an inadequate setback of roughly 10 feet from the property line (and the Pajaro River), and because the Applicant has placed large amounts of rip-rap, apparently without proper Coastal Development Permits, that may have migrated through the project area, options for constructing a replacement wall are more difficult and costly.

There appear to be two basic alternatives to the proposed project that would reduce the amount of ESHA and wetland fill.[7]

The first alternative would be to construct the proposed replacement sheetpile wall all on the inland side of the existing wood and lagging wall (all-inland alternative). Such placement could be located entirely on private lands, and, while it would not prevent the temporary construction impacts of a project of this type and magnitude, it would prevent the permanent loss of ESHA, wetland, and public beach area. By removing the existing wall and restoring in the area that would be seaward of the new sheetpile wall, some portion of the negative impacts from such a project could be mitigated. Again, there would be no permanent loss of ESHA or incursion onto public lands with this alternative wall project.

The second alternative, developed by the Applicant's engineers, that attempts to address both the Coastal Act inconsistencies with the project as proposed and the construction feasibility issues at the site, would be to construct a replacement sheetpile wall that would be located primarily inland of the existing wood wall location, but would be located abutting the river side of the wooden wall in the two locations where the existing condominium buildings were located within ten feet or so of the existing wall (see exhibit D). In other words, the wall would undulate into and out of the river area (hybrid alternative). As the Applicant indicates, areas seaward of the sheetpile wall location could be restored to sandy beach/dune river mouth for a habitat gain. Permanent loss of ESHA would be limited to roughly 1,000 square feet of river mouth lands with this alternative wall project.[8] Like the Applicant's proposed project, though, this alternative is not consistent with Coastal Act section 30240, since it would require development in

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6 As described earlier, the Commission has been unable to locate CDPs authorizing the placement of rip-rap in these areas. See "Alleged Violation" finding below.

7 The Commission's Senior Coastal Engineer has evaluated the alternative projects and concluded that there are any number of potential engineering measures that can be applied during construction that address the identified construction difficulties (see exhibit F for a memo from the Commission's senior coastal engineer on this topic). While it is clear that there are some difficulties in construction due to the presence of rip-rap and the proximity of buildings to the River's edge, these difficulties are not insurmountable.

8 The two areas where the undulating alternative wall would be on the river side of the existing wall location represent approximately 200 linear feet. With a footprint width (into the river from the existing wall face) of roughly 5 feet, a total of 1,000 square feet would be so occupied.

ESHA.

The rip-rap in the project area presents difficulties for all alternatives, ***including the Applicant's proposed project***. Since sheetpiles cannot be driven through rip-rap, rip-rap must first be removed from any replacement wall alignment. The two alternative wall locations would require removal of all of the rip-rap and wall elements for that portion of the project nearest to buildings B and C. Where the new wall was located more inland of the existing rip-rap and wall areas (i.e., where it undulates inland), it would largely avoid areas of concentrated rip-rap and it appears likely that the sheetpiles could be driven in these more inland areas without focused rip-rap removal (see page 3 of exhibit D). That said, restoration of the areas riverward would require removal of the rip-rap and wall in these areas. Thus, the two alternatives would ultimately (if the area riverward were restored) require removal of most (for the undulating wall alternative) to nearly all (for the all inland alternative) of the existing wall (a total length in the project area of about 550 feet) and rip-rap (estimated at roughly 1,500 cubic yards of rip-rap existing; 1,000 of that estimated on the inland side of the existing wall). In comparison, the Applicant's proposed project would require about 50 feet of the existing wall itself to be removed and all of the rip-rap on the river side of the existing wall (roughly 500 cubic yards estimated) to be removed; the remaining wall and rip-rap would remain in place as proposed by the Applicant.

The main resource concern with the two alternatives to the Applicant's proposed project is that both the all-inland and hybrid alternatives may require more time to construct than would the proposed project (estimated at 3 months for the proposed project, 5 months for the hybrid alternative, and 4-6 months for the all inland alternative).[9] With a limited construction window of September 15th through December 15th due to snowy plover and steelhead issues, such additional construction time may spread construction over two seasons with both the hybrid and all-inland alternatives. However, actual construction duration is difficult to predict given the range of unknown factors (including weather and species issues); this is particularly the case for the hybrid and all-inland alternative projects given the uncertainty with the removal and crossing components. Also, the construction estimates were based upon a Monday through Friday work schedule, where only 22 work days are available in a month (thus 3 months translates into 66 work days, and 5 months translates into 110 work days). None of the estimates include allotting time for the restoration component.

In any case, it seems that if a 7 day work week were used (to take full advantage of the limited window available within which to construct), and in light of the uncertainty and delay associated with winter storms and site conditions, it seems reasonable that any of the options may feasibly be constructed within the 3 month window. It may also be necessary, in any case, to spread construction over two

[9] There has been some confusion as to the origin of the construction estimates. It is noted that the Applicant's CEQA alternatives analysis (dated October 17, 2001) estimates that the all-inland alternative would cost $3 million, and would require two, 2-3 month construction seasons (i.e., 4-6 months total). The Applicant's consulting engineer letter report (dated March 22, 2002) refers to the CEQA alternatives analysis estimates for the all-inland alternative, and estimates $1.5 million/3 months for the proposed project, and $2 million/5 months for the undulating hybrid alternative. In any case, and as discussed, these estimates must be understood within the context of an overall level of uncertainty as regards construction issues in a dynamic habitat and shoreline environment. The most recent submittal by the applicant estimates $1.2 million for the proposed project, and 3-4 construction seasons for the all-inland alternative.

seasons, depending on actual construction issues. Ultimately, estimates for how long the any of the project alternatives would take to complete are fraught with uncertainty for several reasons: the dynamics of construction in a constantly changing river/slough environment; the uncertainty of late fall/early winter weather and storm events; the vagaries of the locations of existing rip-rap (and the difficulty in locating, avoiding, and removing same); the types of measures that may be necessary to protect the existing condos during construction; the 3 month maximum construction season (to address species concerns); and, of course, the interaction and interplay of each of these. Given the level of uncertainty, the Commission finds that multiple seasons of construction (if absolutely necessary), and the temporary impacts associated with same, is preferable to the permanent displacement of ESHA.

The Applicant prefers their proposed project to the hybrid and all-inland alternatives primarily because their estimates[10] indicate that it would be less expensive ($1.5 million versus $2 million (hybrid) and $3 million (all inland) estimated), quicker to construct (3 months compared to up to 6 months estimated), would result in less turbulence and scour were it constructed along a straight line rather than an undulating line (as would be the case with both the hybrid and all-inland alternatives), and that some amount of additional seismic protection would be provided by leaving the existing wood wall and tie backs entirely in place inland of the existing wall (as opposed to severing such tiebacks where the alternative wall extends inland of the existing all location). Regarding the straight line versus undulating line, it is unlikely that the eddying and potential scour that would be engendered by a curvilinear wall alignment would be substantial given the minimal curving identified. Moreover, any such minimal scouring would be expected to be of insignificant consequence given the extreme depth of the piles that would be installed in this case well below identified scour levels for this section of the Pajaro River (i.e., ACOE has designated a scour level of –6 NGVD, and the king and sheet piles would be installed to roughly –53 and –23 feet NGVD, respectively; roughly 47 and 17 feet below expected scour). In addition, a curvilinear wall is more respective of, and consistent with, a natural River environment within which straight line edges are atypical.

Regarding the Applicant's seismic protection argument, it is instructive to note that the proposed wall is specifically not meant to function for seismic protection, nor was the existing wood lagging wall. As the Applicant's consulting engineer states, "the primary purpose of the riverwall is to prevent erosion of the referenced site from the Pajaro River flood waters, not to support the condominium buildings. The existing condominium buildings are supported on piles independent of the riverwall." In fact, the Applicant's engineer indicates that to protect the Pelican Point condominiums from seismic factors, the entire development would need to be surrounded by a continuous, deep-rooted containment wall cross-tied together; an enormous project multiple degrees of magnitude larger than that proposed. The Applicant specifically directed the consulting engineering team that the proposed project not be designed for seismic conditions. Thus, it is not accurate to argue that one alternative provides for some additional margin of seismic protection when none of the alternatives are designed to either address seismic risks, nor to ultimately prevent damage due to seismic events; to do so would require a much larger project, different in its design and scope than that proposed or considered here.

[10] Ibid.

Ultimately, evaluation of the proposed project versus the two alternative replacement wall projects focuses on the balance between the amount of permanent ESHA and public lands lost (for areas where any of the alternatives would cover ESHA and State Lands permanently) versus the amount of temporary ESHA impact (due to the length of construction time of the project). The Applicant's preferred alternative (i.e., the proposed project) would result in the largest permanent loss of ESHA, but it is estimated that it could be constructed in the shortest amount of time. The other two alternative wall projects would result in less permanent ESHA and public land loss (up to complete avoidance of permanent ESHA loss with the all inland alternative), but would take longer to construct (for the all inland alternative).

Approvable Project

Because it is feasible to construct a replacement wall on the Applicant's property, the Commission finds that the Coastal Act prohibits permanent encroachment into the Pajaro River/Watsonville Slough ESHA, and further requires restoration of the area on the habitat side of the new wall. Such a project is best accomplished by slightly modifying the location of the undulating hybrid wall alternative developed by the Applicant to ensure that those portions of it identified on the river side of the existing wood and lagging wall are instead located on the condominium side of the existing wall. This revised wall location avoids the majority of the known rip-rap between buildings B and C, and between buildings C and D (since the location is inland of the rip-rap placement areas), thus limiting the more difficult construction areas to those locations where buildings B and C are closest to the River. This option also allows for the largest area available for restoration on the river/slough side of the sheetpile wall thus established.

This revised alternative still raises the same temporary impact and Coastal Act issues identified above for the proposed project, but it eliminates any permanent coverage of ESHA and State Parks land on the river/slough side of the existing wall, consistent with the Coastal Act. Thus, this approval is conditioned for revised final plans for the undulating wall alternative as modified to move the wall inland at the two locations where the Applicant's undulating wall concept plans show it riverward (see exhibit E for approval details in site plan view). Such plans must minimize any necessary construction impact areas on the river side of the existing wall to the absolute minimum necessary. See special condition 1.

Even with a revised project, there remain impacts and Coastal Act policy inconsistencies to address (as detailed more specifically in the findings above), including negative impacts on ESHA, ESHA biotic receptors (including Federal and State listed species), and public resource recreational areas during construction; the related short-term and long-term negative effects on habitat productivity due to habitat recovery and normalization needs caused by construction; the loss of 12 cubic yards of sand per year to the shoreline sand supply system; the lack of adequate access to the shoreline; the overall increased artificial massing in the public viewshed; and the lack of assured long-term structural stability and assumption of risk. In order to address the coastal resource impacts and policy inconsistencies, impacts that are reduced in some cases with the revised alternative project (e.g., the area of land given over to wall placement) but otherwise the same or potentially increased (e.g., construction impacts), a roughly proportional mitigation package is necessary. The site issues, in tandem with the mitigations proposed as part of the project, provide a substantial basis from which to develop such a package. Many of the

measures already proposed need only slight adjustment to respond to the alternative project and the range of impacts, but are fundamentally sound in their basis. Thus, a mitigation package that provides for high quality restoration on the undeveloped side of the sheetpile wall; compensatory restoration immediately north of the project site within the Watsonville Slough uplands; adequate long term screening, monitoring, and maintenance; assumption of risk and prohibition on riverward/sloughward expansion, is required as follows.

The Applicant has proposed deeding a portion of the land on the river side of the existing wall held by the Applicant in fee title to an appropriate management entity. The Applicant has likewise proposed to offer a conservation easement over an area of land north of the project site within the Watsonville Slough System. These proposed measures need to be implemented consistent with the Commission's standard form and content for such legal documents, and need to be augmented to protect the habitat restoration area (see below). In addition, since a management agency to which to dedicate land has not been positively identified, the outright dedication should be in the form of an offer to dedicate either the fee or an easement. In addition, all areas on the river side of the undulating wall within the Applicant's property boundaries must be placed under a conservation easement subject to the same or similar legal instrument. See legal instrument detail in exhibit E for depiction of the easement area. See special condition 3.

All areas on the river/slough side of the sheetpile wall within the construction zone must be restored to provide high quality habitat (see restoration area detail in exhibit E). The Applicant will need to submit a revised restoration plan for this purpose consistent with the Commission's generally accepted parameters for such plans. See special condition 2.

The area north of the project site on the Applicant's property between the waters of Watsonville Slough and the paved roadway area (i.e., the general area for which the Applicant has proposed a conservation easement) must be restored to provide high quality slough habitat. The revised restoration plan must be extended to cover this area as well (see restoration area detail in exhibit E). See special condition 2.

To limit habitat impacts, in particular snowy plover and steelhead impacts, a limited construction period has been established (through the CEQA and agency review process) that limits construction activities to September 15th through December 15th. This construction window is based upon CDFG's stream alteration agreement (September 4 through December 20), and the USFWS and NMFS consultations (that describe a mid-September to mid-December construction period). The Applicant, understandably concerned about such a limited construction window, has indicated that a September 4th through December 31st construction window is more desirable. The Applicant has additionally argued that since the work would commence at the slough side and work towards the ocean, the construction window for work on the river side could be more flexible. However, the Commission notes that the December 15th end date already extends into a "buffer" time within which Federal resource agencies rarely allow such construction near steelhead rivers (such as the Pajaro). In fact, NMFS indicates that they typically recommend that work cease by October 15th in or near steelhead rivers, that the December 15th date in this case already liberally stretches the allowable construction time frame, and that a later end date in this

specific case is unacceptable.[11] Further, USFWS and Point Reyes Bird Observatory (PRBO) indicate that October 1st is typically the first date when construction is allowable in and around plover habitat such as is present at this location.[12] PRBO has also documented up to 40 plovers wintering at the mouth of the river; any additional pile work (such as pile driving past December 15th) would be expected to even further displace such plover wintering. Also, as described earlier, there are indications that pile driving in and of itself has adverse consequences even were different construction windows to be deemed appropriate for different "sides" (i.e., slough versus river) of the project area. In other words, the September 15th to December 15th start and end dates represent an already very liberal construction time frame for which deviation is inappropriate given the potential for listed species impacts. USFWS has indicted that work outside of the identified construction window will require a formal consultation pursuant to Section 10 of the Federal Endangered Species Act.[13] Although some amount of site preparation inland of the existing wall (provided there is no incursion of materials, equipment, and/or activity on the river side of the existing wall) outside of this window is allowable (and may be preferable depending on the engineering approach taken – see exhibit F), this project is conditioned for a September 15th to December 15th construction window on the river/slough side of the project (see special condition 1).

With the limited construction window, the construction uncertainties, the weather and storm variables, , the river alignment uncertainties, as well as the interplay of these together, the overall length of time required to complete the project and the required restoration is uncertain. Based upon available estimates and technical review, it appears that the project approved by the Commission is likely to require two construction seasons to complete; three if there are unusual circumstances. The project plans must include a description of any phasing and all construction measures to be used (see Special Condition 1). If, for whatever reason, the approved wall cannot be constructed within 3 construction seasons, the Commission may need to reevaluate the project. Therefore, this approval is conditioned for a completion date of December 15, 2005 (see special condition 9). If for whatever reason, this completion date must be altered, the Applicant will need to amend this coastal development permit.

Given that the project may take two construction seasons, the restoration may need to be phased as well. In any case, any completed wall components need to be accompanied by the required restoration at those segments. Since the schedule is to begin construction along the Watsonville Slough side and work toward the Monterey Bay, such phasing should allow for construction and restoration in the critical slough area in the first construction season. See special conditions 1 and 2.

Adequate screening of the sheetpile wall over the life of the structure must be maintained. The proposed cascading species must be revised and supplemented to ensure that such camouflaging effectively screens the metallic angled wall as seen from public view areas. Moreover, long-term maintenance of the screening element, and performance standards for it, are required to ensure that the screen is effective

[11] Commission staff personal communication with Jonathon Ambrose, NMFS.

[12] USFWS's Western Snowy Plover Pacific Coast Population Draft Recovery Plan, and Commission staff personal communications with Amelia Orton-Palmer (USFWS) and Gary Page (PRBO).

[13] Commission staff personal communication with Amelia Orton-Palmer, USFWS.

over the life of the project. Typical exposed wall heights (i.e., above grade) have been estimated by the Applicant's CEQA document to range from 5 feet in summer to 8 feet in winter; of course, a large storm event and/or maximum river scour event would lead to much higher levels of exposure, if only for brief periods of time. Therefore, the cascading screening must at a minimum camouflage the upper 5 feet of the sheetpile wall, with the goal being to screen the entire wall exposed above grade as seen for the river/slough side of the wall. See special conditions 2, 6, and 10.

To protect the resource area on the river/slough side of the sheetpile wall consistent with the Coastal Act, and in order to find this project consistent with Coastal Act Section 30253 requiring that development not require additional armoring in the future, no further encroachment on the river/slough side of the sheetpile wall is allowed in the future; as-built plans provide a basis for assuring that this is the case, and property restrictions can implement these requirement. See special conditions 4, 5, 6, and 10. In addition, further assurance of the required long-term stability requires regular monitoring and maintenance. All monitoring and maintenance commitments must be recorded as property restrictions to ensure long-term compliance, and to ensure that any future landowners are clearly notified of these commitments. See special conditions 6 and 10.

There are inherent risks associated with development in this dynamic coastal environment; this applies to the sheetpile wall as well as for the development inland of the wall itself. The project site, and all development on it, is likely to be affected by coastal hazard processes in the future. Although the Commission has sought to minimize the risks associated with the development proposed in this application, the risks cannot be eliminated entirely. Given that the Applicant has chosen to pursue the development despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the Applicant to assume all risks for developing at this location (see special conditions 6 and 10).

The underlying land owner (SLC) and property manager (DPR) must provide their consent and approval for the project as approved. Since the approvable project does not result in permanent encroachment on State-owned lands and *Zmudowski State Beach*, it now is consistent with DPR's recommendations (unlike the Applicant's proposed project) and will require only temporary construction access approvals from SLC and DPR as opposed to a State Lands lease or transfer of property. See special condition 7.

Finally, although access to the shoreline from the nearest public road (i.e., Beach Road roughly one mile upcoast) is not provided with the project, this public access impact of the project as approved and conditioned herein is insufficient of itself to require the provision of access through the Pajaro Dunes/Pelican Point development from Beach Road to the project site. That is not to say that there is no such public access impact, but rather that this impact of itself appears to be insufficient to require direct access in this case. That said, this public access impact, and the others identified, can effectively be mitigated by the increased public access area that will be made available by the approved project due to the restoration of the river side of the undulating wall (a net gain of roughly 1,000 square feet) from what exists today. Nonetheless, this approval does not in any way not constitute a waiver of any public rights which may exist on the Pajaro Dunes/Pelican Point property. See special condition 8.

So as to assist in implementing the terms and conditions of this approval, and to ensure that all future landowners are notified of same, special condition 10 requires all of the Special Conditions of this approval to be recorded against the deed to the Applicant's property as covenants, conditions and restrictions on the use and enjoyment of that property.

By conditioning the approved project in this way, the sheetpile wall project can be considered a repair/restoration project inasmuch as it would be correcting a pre-Coastal Act anomaly to the degree feasible, reclaiming a portion of the former sand spit dune area currently devoted to urban development, while at the same time providing for modifications to the existing wall concept to correct design inadequacies relating to actual scour events at this dynamic location. Restoration of the construction area and offsite compensatory restoration adjacent to the work site (extending along the Watsonville Slough uplands) along with legal instruments to protect restoration and access areas effectively round out the mitigation package. As such, the approved project simultaneously meets the Applicant's project objectives and addresses Coastal Act policy requirements to the degree feasible.

Alleged Violation

The existing wooden pier and lagging wall at the project location was installed prior to the coastal permitting requirements of Proposition 20 and the Coastal Act. The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden wall, and along roughly 100 feet of the "headland" of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant's estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such placement and has opened a violation case file (V-3-02-026) and is investigating the alleged violation. In addition to the rock placed, a concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work was never recognized by the required follow-up CDP.

The proposed project, and the approvable alternative, have been evaluated based upon acknowledged existence of the rip-rap in the project area, and of the concrete whaler beam installed under emergency authorization in 1991. In fact, the approvable project alternative was shaped in part by the need to address rip-rap concentration areas near the existing condominium buildings that would preclude sheet pile driving if not properly removed, and partly by the dimensions of the concrete whaler that dictate the location of any wall alternative on the river side of the existing wall. Although this application has been considered based upon the policies of Chapter 3 of the Coastal Act, consideration of this application does not constitute an admission as to the legality of any development undertaken on the subject site without benefit of a coastal development permit and shall be without prejudice to the California Coastal Commission's ability to pursue any legal remedy available under Chapter 9 of the Coastal Act.

3. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Pajaro Dunes Geological Hazards Abatement District certified a mitigated negative declaration supplemented by additional alternatives and impact analysis per CEQA. Commission staff provided early feedback on the first CEQA document (June 2001) including the recommendation to pursue the all-inland wall alternative if it were feasible (as is being recommended for approval here). Such recommendation built upon similar advice provided to the Applicant's then representatives during their initial project development stage, and prior to the preparation of the first CEQA documents in early 2001 (roughly 1½ years ago). The CEQA mitigation measures identified in the certified negative declaration are included as part of the proposed project description.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).